Training Southern Boys for their Mighty Task

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The foremost scientist or philanthropist or the multi-millionaire is not so much to be envied as the boy who, equipped hy education and industrial training, now stands on the threshold of his active life. Just as the scientist or the multi-millionaire is reaching the end of his journey the boy is starting on his. The possibilities of the forty or fifty, or, perchance, sixty, years ahead of him are beyond all present wealth or fame. He enters the arena of activity in a period which promises to work marvels, compared with which the telegraph, the telephone, the electric light and all other wonders of the wonder-working mineteenth century shall pale into insignificance. Twenty years ago electric street-car lines were unknown; twenty years ago we had just learned that the human voice could be transmitted through the telephone, and even ten years ago it was a rare thing for men to use the long-distance 'phone. We all remember our astonishment when first we talked with friends 500 or 1000 miles distant. But today these things seem trifles. They are a part of every-day life in every city. And now the telephone and the electric road are gradually stretching out into the farming regions, and the loneliness of farm life is in many places passing away. Progress, progress everywhere, epoch-making inventions, revolutionizing methods in commerce and industry, advancement in arts and sciences—such has heen the panorama which for half a century has heen sweeping hefore us. Man's productive, wealth-making power has been douhled and quadrupled. In the development of industry and in the creation of wealth the nineteenth century did more than all the eighteen which had passed since the angels of God sang "Peace on earth, good-will to men."

But the new century is to see progress, swift, world-encircling, heside which the story of the last shall seem tame. Marconi has giveu us a hint of changes which we cannot yet comprehend. The terrors of the deep, the loneliness of the trackless ocean, seem destined to a large extent to be swept away by the power which may enable ships at sea to communicate almost as easily as you now telephone to your neighhor. In this invention we see the coming of a time when, if storms buffet or disasters threaten a ship, the wireless message may go speeding out to find a responsive chord, though hundreds of miles distant, to call for help. In the light of such a discovery the boasted progress of the past is douhtless but an indication, a hint of what the boy of today will witness ere old age shall come upon him. Who can measure what it will be worth to see these coming events, to be active participators in them, possibly to be Heaven's chosen agent for giving to the world some of these new factors in human affairs?. Surely, it is worth more than to be crowned with earth's highest honors or with its greatest wealth, and

yet to have reached man's allotted age at a time when the world is entering upon a period which promises to bring us many marvelous revelations suggestive of that Divine power which guides the universe and holds the stars obedient to its will. Let us, therefore, in the presence of every boy feel that we may well stand with uncovered head, remembering that the boys of today are tomorrow to be the rulers of the world's affairs, and, indeed, the real kings of the earth.

Shall the boys of the South act well their part in the great drama whose swiftly-moving scenes show that the world's business interests are to be more and more controlled by specialists trained for their chosen work? The answer rests with the men and women of today. The financiers who sway the destiny of the world's monetary interests are men who for years have centered every power of brain and energy upon the study of financial problems. The railroad kings, greater in power than those upon royal thrones, have given such close study to the construction, financing and operation of railroads as to have justified the statement once made of President J. J. Hill of the Great Northern Railroad, by a friend, who said that he knew the cost of driving every spike on that line. The foremost men in the industrial activities of Europe and America are men fitted for their work by years of study, investigation and application. Every day emphasizes these facts. The untrained man is losing his influence and his chances of success before the increasing power of the trained expert. The one stands for the soldier armed with the old-time muzzle-loader in a contest with the soldier equipped with the Mauser rifle. Unless the South promptly develops its now limited facilities for giving manual and technical training to the tens of thousands of white boys who would gladly avail themselves of the opportunity, its greatest natural advantages will no more enable them to win in competition with the technical experts of other sections than would a naturally strong position enable an army equipped with the old muzzle-loader to withstand an assault from one holding a position naturally weaker, but equipped with the repeating rifle and the breech-loading cannon.

Let us realize that great as is our opportunity, so shall be our responsibility to the future.

The Georgia School of Technology and all similar institutions are indicative of the South's awakening realization of its need to give to its boys the opportunity to fit themselves to be successful workers in every line of human endeavor, but what the South has done is only a small beginning in what it must do. The men who succeed today, who contribute to the welfare of their fellows and the progress of the world, are the men who *do* things with their minds or with their hands, or, best of all, with the combination of both. Happy the individual who has opportunity to *do*. Happier the one who has been trained to *do* with the greatest efficiency.

In the struggle for individual, community or national success the trained expert is to be the leader. We honor the victors in battle, and crown with glory those who have been most successful in applying the art of destroying human life.

Iu au age when brute force ruled the world this was natural. Unto the men who, when their country calls to battle, can lead its armies and its navies to victory we should still give honor, but how much greater should be the honor given to him who, marshaliug his financial and engineering forces, opens our coal miues, builds our mills and lights our furnace fires; How much greater honor should we pay to him who has learned how to upbuild rather than to destroy, how to create cities rather than to couquer cities, how to turn our raw material into the finished product, to expand and ennoble human life by touching it with the quickening waud of profitable employment, rather than wreck and ruin it by the arts of war! Aud even modern warfare has become a contest of the staying powers, the productivity of nations, and a rivalry of experts in armament, projectiles, naval construction and gunnery, with gold lace and feathers yielding to the overalls of the eugineer. The achievements of a Lee or a Jackson—names which the world must forever honor as among the greatest of earth—are uot more worthy of our praise than the victories of peace which are being won for the South and for humauity by our "captains of industry." All honor to our soldiers and our sailors, to "the man behind the guns," as well as to their leaders. They are our safeguards, and must be so until the time shall come when the sword shall be beat into the plowshare; but there would be no couutry to defeud were it not for the creators of industry, upon whose work rests the existence of every nation. To manage successfully our railroads and our industrial iustitutions demands an ability and skill equally as great as that needed by the general who leads an army to victory. Civilization is no louger based on physical force, but mainly on commerce and trade. "The arts of gain," said John C. Calhoun, "are the most powerful agencies of civilization." Sometimes we are too prone to sermonize over the spirit of "commercialism," forgetting that trade and commerce have ever ruled the civilized world, and that their advancement has ever marked the advancement of the human race. Since the day when the Almighty decreed that iu the sweat of his brow mau should earn his bread the real benefactors of mankind have been those who have led iu "commercialism," in opening new avenues of employment, and the men who are to be the greatest benefactors of the people of the South are the boys who, trained iu our technical schools, are to be the leaders in our material upbuilding. Their work will open the way for the advancement of education, of the arts and scieuces and of religion itself.

Twenty-odd years ago a young South Carolinian, realiziug this truth, and finding no chance for a techuical training in the South, went North, and by hard labor paid his way through the Troy Technological School. From there he went to a great steel plant iu Pennsylvania, aud thence to Germany, to fully equip himself for his life-work. About fifteen years ago he returned to his native land, and since then D. A. Tompkius of Charlotte has, indeed, been a leader for the South, the value of whose work can never be fully revealed. In Charleston fifteen or more years ago a youug boy of aristocratic birth saw the same light that beckoned

Tompkins away from the professional thought of the South, aud despite parental ohjections, and despite the most flattering offers of financial aid if he would only abandon his engineering proclivities, W. B. Smith Whaley saved money enough to pay his way North. In a big Providence cotton mill, working for wages, he started at the hottom, and, working his way through the rattle and roar of the whirring machinery, saved in order that he might enter a technical school. When he had graduated there he determined to go hack to South Carolina and prove to the young men of that State, many of whom were claiming that the South afforded no business opportunities, what energy and trained skill combined could accomplish. That was only ten or twelve years ago, hut today Smith Whaley operates, as president of three or four cotton mills, more spindles than auy other man in the South. Ouly a few weeks ago he received a contract to desigu and huild a mill in New England to cost nearly a million dollars, and he is eveu now organiziug a company to huild iu the West, at a cost of $10,000,000, the largest cotton mill in the world. Three years ago the Baltimore directors of an Alabama iron company in their annual iuspection saw at oue of their furnaces a young man, delicately reared and surrounded all his life hy wealth and culture, handling a gang of negro lahorers, doiug the hardest and hottest work around a furnace, in order that he might fully master the iron husiness. Though covered with dirt and hegrimed with smoke, he never faltered. Neither the heat of summer nor the cold of winter lesseued his intense application to his work. With this practical experieuce he took a course in a technological school, and oue year ago that company, lookiug everywhere for a man who could mauage a furuace where half a dozen men had failed to secure satisfactory results, turned to this young man, only twenty-two years old, and for nearly twelve months a half-million-dollar plant has been in his charge, yielding a larger output of irou at a greater profit than it had ever done hefore. But why mentiou a few cases when hundreds might be given? Everywhere we see the same thing. The rich cotton-mill men of the Carolinas are trainiug their sons to be greater mill-men than they have been, great as has been their success. The professional man sees that in industrial life his sous will have hroader opportunities than in law or mediciue, hut under our limited technical-school facilities the poor hoy has but little chance to ohtain the education to which the rich man's son is more and more turning. It is for these unnumbered poor hoys that I would plead. The South must give them the hroadest manual and technical educational facilities or prove recreant to its responsihilities.

In the Lake Superior district nature has piled her wealth of iron ores, and in West Virginia and Pennsylvauia she has stored unlimited coal, but a Carnegie and a Frick were needed to take these materials and center the world's iron and steel trade at Pittsburg. Pennsylvania is 6000 square miles smaller than Alahama, it has less ore and less coal aud less timber than Alabama, its agricultural capahilities are not greater than Alahama's, hut its industrial advaucement, based on coal and iron aud timher, is almost heyond the power of our minds to grasp. Thc

census of 1900 tells us that the manufacturing interests of Pennsylvania employed in that year $1,551,548,712 of capital, and yielded $1,843,790,860 of product. This is $400,000,000 more than the combined manufacturing capital of the whole South, and $350,000,000 more than the product of the South's factories.

But turn to Massachusetts, one of the smallest States in the Union, only one-seventh as large as Georgia. Of such as we usually class as raw materials Massachusetts has little or none. It has neither coal, nor iron, nor cotton, nor timber, but many years ago it took its one raw material—its boys and girls—and developed that by teaching them how to do things, how to work with hand and with brain, how out of the coal and iron and cotton of other sections to create wealth until it outstripped the fourteen Southern States in industrial employment and in the value of its manufactured products. Ten years ago that little State, with its 2,250,000 people, had a greater productive capacity in manufactures than the South's 20,0000,000. Our progress during the past ten years has placed us at last ahead, but just a little. Think of it, and grasp its meaning to us as indicating the potentialities of the South's future, that the 2,500,000 people of Massachusetts can take our cotton, our iron, our coal and our timber, and by the power of the technically-educated brain and hand turn out manufactured products equal in value to those of the South, with its population of 25,000,000.

Rightly have we boasted of our advance, rightly have we heralded to the world the story of our rise from poverty. All honor to the men and women who have made this possible, all honor to the leaders who have blazed the way to victory. But let us bestir ourselves, let us awake to what we may now accomplish if we will only seize the opportunity. Let the story of what Massachusetts and Pennsylvania have done stimulate us to do greater things. The opportunity is ours. Shall we prove equal to it? We are in a machine age—an age in which the engine is really the measure of a nation's advancement. The past furnishes no counterpart of what our future is to be, for the past knew not the steam engine and all that is typified by it—the railroad, the labor-saving machine, the telegraph, the telephone, electric-power, electric light and kindred things. This new age opens to men greater opportunities than were ever dreamed of before. Talk about combinations restricting the chance for the future! Why, we have never seen possibilities such as await the man who is fitted to grasp the opportunities of the coming years. Talk about lack of opportunities! My friends, the time is coming, and some of these boys shall live to see it, when the present industrial structure of the United States, with its 600,000 factories, its $10,000,000,000 of capital and its $15,000,000,000 of manufactured and mineral output, shall be duplicated in the South alone. Can you measure what it means to see within the next forty or fifty years the South's 93,000 factories grow to 600,000, its $1,200,000,000 of manufacturing capital multiplied ten times, and the annual output of its factories and mines grow from $1,600,000,000 to $15,000,000,000?

One meaning for us is that the South must at once begin to give to its boys—

to the poor and rich alike—the broadest facilities for that training which will prepare them to do their part in this great development. Let no man say we are too poor. Thirty years ago that plea might have been justified, but now it is misleading. We have talked poverty, and talked of our dependence upon the energy and capital of other sections, until we have convinced ourselves and the world that we can do nothing by ourselves. But do you realize that the total true valuation of the property of the Southern States at present is equal to the total for the United States in 1860? In that year the total wealth of the whole country was $16,100,000,000, and the census will show that in 1900 the South's wealth was about the same. Look for a moment at a few really amazing figures. In 1860 the entire country made 884,474 tons of pig-iron; today the South alone is making nearly 3,000,000 tons, or more than three times as much. In 1860 the total output of bituminous coal in the United States was 5,775,077 tons; last year the South mined over 51,000,000 tons, Alabama alone having an output nearly double the total bituminous coal production of the whole country forty years ago. Today the South has over 55,000 miles of railroads; the country had only 30,592 miles in 1860, and of this 9800 miles were in the Southern States. The value of the manufactured cotton goods of the South is now over $110,000,000 a year, while the output in 1860 for the United States was only $115,000,000. The value of the lumber products of the country in 1860 was $96,000,000, while today the South is annually marketing over $200,000,000 worth. Our mineral and manufactured products in 1900 aggregated $1,620.000,000, against $1,900,000,000 for the whole country in 1860. Then the country had 402 miles of street railways; now the South has nearly 3000 miles. Then the petroleum output was only 500,000 barrels; now the South is marketing over 20,000,000 barrels a year, the output being limited only by transportation facilities, and it is, as lately expressed by a London expert, "the Gibraltar of the lights and fuels of the world." Even in banking capital we have nearly one-half as much as the United States had in 1860, viz., $205,000,000, against $420,000,000.

These facts are unanswerable arguments as to our ability to educate our own people. They should awaken our self-reliance and create in the South a determination, while bidding a hearty welcome to all voluntary contributions from other sections, to depend upon ourselves alone in this vital work. Yes, we are abundantly able to provide the broadest manual and technical educational facilities for every white boy, and to do it ourselves. When we awaken to this fact and to its vital importance, politicians and taxpayers alike will unite to demand that it be done. Unless we do it we shall be false to every interest of the South and false to Anglo-Saxon civilization itself.

The destiny of the South is to be in the hands of the men who shall be the leaders in this coming industrial age. Southern boys of this day must be the leaders, or they will be the "hewers of wood and the drawers of water" for others who will come and do the work which will inevitably be done. The trend of the

world's economic development is toward the South. It is for this generation to say what part the people of the South shall play in this great marcb to industrial and commercial supremacy. As are our opportunities, so sball be our responsibilities. Nature has done more than her share. She bas covered our mountains and our valleys with timber; she has burdened our hillsides with mineral wealth heyond the power of imagination; she has given us coal and iron and cotton and oil, marhles and granites and clays; she has furnished us a variety of soils, whicb, according to their kind, ueed hut to he "tickled with the boe to laugb with tbe harvest" of cotton or grain or sugar or rice or fruits. Eartb bas no duplicate of tbe wealth of nature's hounty to us, hut great as is the wealth of all our unmeasured raw materials, it is in value but as a grain of sand upon the seasbore compared simply with the economic value of our boys and girls. They are our greatest raw materials. Our schools, especially the manual and tecbnological schools, are to be the factories which, using them as its raw material, shall turn out the most priceless product known to mankiud—men and women equipped hy training to develop every latent power to their own happiness and to the blessing of their country. The missionary of the Gospel, the minister in the ricb city church or in the mountain chapel, is not doing a greater work nor one fraught with more tremendous importance to the welfare of the individual and to tbe strengtbening of the forces which make for civilization and Christianity than tbe conscientious, efficient teacher who is giving a technical training to the white boys of the South.

In the rough hlock of marhle Michael Angelo could see the angel face ere his genius had made his ideal a reality to others. In the rough block of humanity—the untrained, undeveloped hoy—the world sees no more potentiality than it saw in the block of marble hefore which the sculptor halted when he cried, "I see an angel imprisoned there and must give it freedom." In that hoy there is imprisoned a greater than an angel. In him there is almost infinite power, which needs but to he quickened into life by the divine touch of a friendly hand leading him to know how to live and how to work. There are thousands, yea, hundreds of thousands, of such unutilized rough blocks of marhle all over tbe South—they are the untrained hoys of our cities and our villages, of our valleys and our mountains. There are hundreds of Michael Angelos in the teachers iu industrial schools ready and able as master sculptors to chisel out the imprisoned angels. But the tools—the chisel and the mallet—are needed. Without them little can he accomplished. They represent the money needed to hring these two forces into life-giving contact. Every dollar wisely expended in aiding a boy to secure a technical training belps to give skill to the hrain to plan and strength to the arm to execute, that out of the rough marble there may be created a man fitted to do his part in the work of the world.

And now a few words to the hoys of this school—in fact, to the boys of tbe whole South.

Out of the Valley of Desolation the South, by heroic struggles, has reached its present position. The burden which your fathers and mothers bore shall never be yours. They made it possible for their children to have advantages a hundred, yea, a thousand-fold, greater than their own. Facing the awful wreck and ruin of war, with loved ones given as a sacrifice to the cause which their death made forever sacred, the men and women of 1865 had to meet conditions which called for heroism as great as was ever seen between Bull Run and Appomattox. Greater in defeat than in victory, greater at Lexington than at Chancellorsville, was Lee, the kingliest man of the ages. He typified the South. Accepting defeat on the battlefield as the will of that Providence which guides all human affairs, though feeling that it is, indeed, true that "God moves in a mysterious way His wonders to perform," the people of the South have out of that defeat won a greater victory than ever crowned their battle-flags between 1860 and 1865. Heroic has been the struggle. The South of 1865 was a land of desolation. From the Potomac to the Rio Grande stalked poverty and despair. Alike in city and country, ruin and misery were everywhere. Reconstruction's fearful curse and a disorganized labor system added to our burdens. Without capital or industrial equipment, discredited at home and abroad, the South faced the future with the same unquenchable spirit which had marked the struggles of its tattered and footsore soldiers. But, strange to say, eternal proof of the stuff of which this people is made, the South has kept even step in industrial and railroad advancement with the North and West. It is now coming to set the pace.

A quarter of a century ago the South, still facing the ruin wrought by war, burdened with debts imposed upon it mainly by unscrupulous "carpet-bag" legislators, was just starting on the development of its industrial interests; its railroads were short, disjointed lines, poorly equipped, and in many cases almost, if not quite, bankrupt, financially as well as physically; its laboring people were without industrial training as operatives, and its business men without experience in the management of industrial enterprises; its cotton mills were few and far between, and only here and there could the light of a furnace fire be seen. Laboring under these adverse conditions, the South had to meet the competition of the North and West, flushed as they were with unprecedented prosperity. Their railroads were burdened with traffic; their capital and energy, for years employed in the greatest and most profitable undertaking which ever fell to the lot of any nation—the building up and outfitting of the empire stretching from the Ohio to the Pacific—had returned millions of profit to manufacturers, to bankers, to landowners and to merchants, while the great financial powers of Europe and America had linked their forces in the development of that territory in order to make more valuable their vast investments in railroads and in land grants.

Despite these diverse conditions, the South has kept pace with the progress of the North, and has demonstrated to the final conclusion and its acceptance by the world that here will be the future situs of cotton-manufacturing, and that in this

section there will be created a cotton-mill iudustry rivaling that of the world at present. Out of the waste of cottouseed it has created au industry representing an investment of $50,000,000 or more. It has proved that the predictions of 1880 as to its future position in the iron and steel world are to find a complete fulfillment, for it has proved that pig-iron can be produced here at a lower cost thau in any other section of the United States.

Based on au owuership of one-half of the standing timber of the United States, the South is creating a woodworking industry which is destined to equal the comhined woodworking development of the rest of the couutry. The furniture factories of Grand Rapids are finding their keenest and greatest rival in the furniture factories of High Point. The 20,000 miles of poorly-equipped railroads of 1880 have grown to 55,000 miles, with compact, well-mauaged systems, which iu equipment, in physical and financial conditious, are rapidly taking rank with the hest in the world. The story of the fortunes made in early days in wheat-growing in the Dakotas is more than rivaled hy the marvels which are heing wrought by rice-growing iu Louisiaua and Texas. The profits of orange groves and viueyards in California find more than duplicates in the early fruit and truck growing in many parts of the South. This new industry of fruit and truck growing for Northern aud Western markets, created since 1880, is already yielding au aggregate of uearly $100,000,000 a year.

In the same time we have increased our coal production from 6,000,000 tons to over 50,000,000 tons, though we have only opened a small mine here and there when compared with the extent of territory and of wealth of coal in the great coal area of the South. Twenty years ago the South produced less than 200,000 harrels of oil; uow West Virginia alone is producing over 15,000,000 barrels a year, aud the exteusion of this oil field into Kentucky and Tennessee and into the farther South is every day being emphasized hy the hringing in of new wells; while, turning to the Gulf coast, Texas aud Louisiana have startled the world with an oil supply so far beyond our compreheusion that it is almost folly to attempt to predict what may be its influence in revolutionizing many of the industries of Europe as well as of America.

But the statistics which tell iu cold figures the story of what the South has accomplished, which tell how our pig-iron production has grown from less than 400,000 tons to nearly 3,000,000 tons, our cotton-mill capital from $21,000,000 to $150,000,000, our total mauufacturing capital from $250,000,000 to $1,100,000,000, our exports through Southern ports from $261,000,000 to $510,000,000, tell us really but a small part of the work which has heeu done. These figures only indicate something of the real story. The true advancement, and that which is destined to have the greatest effect upou this section and upon the world, is the experience which has been gained, the industrial training secured, hy the factory haud as well as by the superintendent and the presideut, in the knowledge of how to do things, and in a better understanding of our natural resources. Agaiust the poverty, the

inexperience, the discredit and doubt at home and ahroad of ourselves and our section of 1880, the South, thrilled with energy and hope, stauds today recoguized by the world as that section which of all others in this country or elsewhere has the greatest potentialities for the creatiou of wealth and the profitahle employment of its people.

If their fathers and mothers have done this, what may not the boys and girls of this generation accomplish? Wide as is the East from the West is the difference between your conditiou and theirs; high as the heavens are ahove the earth is your opportunity compared with theirs. Broad is the field for your activities. Favored above all other lands is the sunny South of which we hoast. Its fertile fields and its genial climate, its wealth of cotton, of coal and iron, its marhles, its granites, its timbers and its oil, tell of Heaven's henediction, hut they tell us, too, that "to whom much has been given, of him shall much he required." Every natural advautage, like the buried taleut, is but a curse unless we utilize it. Not of natural advantages should we boast—they are Heaven's blessings, for which we should reverently praise the Giver of every good and perfect gift—hut our hoasting should he that we are taking these latent blessings and turning them into active power for the hetterment of mankind and the eurichment of the world. Every mine opened, every mill huilt, every furnace fire lighted is a creation of employment for lahor; and greater than he who can make two hlades of grass to grow where only one grew hefore is hc who can create employment where there was none before. Yours is au opportuuity such as your fathers never knew. It is in your power to hasten the time when it can be said that throughout the South shall he heard "a continuous and unhroken strain of what has been aptly termed the music of progress—the whirr of the spindle, the huzz of the saw, the roar of the furnace and the throb of the locomotive."

Then prove yourselves, young men of the South, worthy sons of such immortal sires.